

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A radiation image read-out apparatus which comprises:

a radiation image converter panel,

a stimulating light projecting means which projects stimulating light onto the radiation image converter panel, and

a detecting means which detects stimulated emission emitted from the radiation image converter panel upon exposure to the stimulating light beam and reads out a radiation image recorded on the radiation image converter panel,

wherein the stimulating light projecting means projects, onto the radiation image converter panel, stimulating light in a wavelength range where the rate of change of the intensity of the stimulated emission to a given change of the wavelength of the stimulating light is not larger than 1.0%/nm and is not smaller than -1.0%/nm; and

and wherein the wavelength of the stimuable light fluctuates in a manner that would cause a change in the intensity of the stimuable emission.
2. (previously presented): :A radiation image read-out apparatus as defined in claim 1 wherein the rate of change of the intensity of the stimulated emission to a given change of the wavelength of the stimulating light is not larger than 0.5%/nm and is not smaller than -0.5%/nm.

3. (previously presented): A radiation image read-out apparatus as defined in claim 1 wherein the stimulating light projecting means comprises a plurality of stimulating light sources which emit stimulating light of different wavelengths and projects synthesized stimulating light including the stimulating light of different wavelengths onto the radiation image converter panel so that the stimulating light of different wavelengths are simultaneously projected on the same position on the radiation image converter panel.

4. (previously presented): A radiation image read-out apparatus as defined in claim 1 in which the radiation image converter panel has a stimuable phosphor layer formed of alkali halide stimuable phosphors.

5. (previously presented): A radiation image read-out apparatus as defined in claim 4 wherein the alkali halide stimuable phosphors are represented by formula $MX:A$, wherein M represents at least one of K, Rb and Cs, X represents at least one of Cl, Br and I, and A represents Eu^{2+} or Tl^{+} .

6. (currently amended): A radiation image read-out apparatus as defined in claim 1 wherein the change of wavelength of the stimulating light is defined by internal heating of the ~~stimulable~~stimulating light projecting means.

7. (currently amended): A radiation image read-out apparatus as defined in claim 1, wherein the stimuable light projecting means projects stimuable light onto the radiation image

converter panel at a wavelength in which the intensity of the stimulated emission is maximized,
~~and wherein the wavelength of the stimuable light fluctuates in a manner that would cause a~~
~~change in the intensity of the stimuable emission.~~

8. (currently amended): A radiation image read-out apparatus as defined in claim 3, wherein the rate of change of intensity of the stimuable emission is suppressed to not larger than 1.0%/nm and not smaller than -1.0%/nm as an increase in the intensity of the stimulated emission due to a fluctuation in wavelength of ~~one~~ a first stimulating light source is cancelled by a reduction in the intensity of the stimuable emission due to a fluctuation in wavelength of a second stimulating light source.

9. (previously presented): A radiation image read-out apparatus as defined in claim 3, wherein the synthesized stimulating light projected by the plurality of stimulating light projection means suppresses the rate of change of intensity of the stimuable emission to not larger than 1.0%/nm and not smaller than -1.0%/nm by cancellation when the plurality of stimulating light projection means fluctuate in wavelength.

10. (currently amended): A radiation image read-out apparatus as defined in Claim 1 in which the stimulating light projecting means comprises one or more first stimulating light sources which emit stimulating light in a wavelength range where the rate of change is larger than 0, and one or more second stimulating light sources which emit stimulating light in a wavelength range where the rate of change is smaller than 0.